UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/586,534	07/19/2006	Takashi Nomura	029267.58056US	1621

23911 7590 03/04/2010

CROWELL & MORING LLP
INTELLECTUAL PROPERTY GROUP
P.O. BOX 14300
WASHINGTON, DC 20044-4300

EXAMINER	
ZHAO, YU	
ART UNIT	**PAPER NUMBER**
2169	
MAIL DATE	**DELIVERY MODE**
03/04/2010	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/586,534	NOMURA, TAKASHI	
	Examiner	Art Unit	
	YU ZHAO	2169	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *14 January 2010*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-13* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-13* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on **January 14, 2010** has been entered.

Response to Amendment

2. Acknowledgment is made of applicant's amendment filed on **January 14, 2010**.

Claims 1-13 are presented for examination.

Claims 1-5, 7-8, 10 and 13 are amended.

Claim Objections is withdrawn in light of amendment by the applicant(s).

Response to Argument

3. Applicant's arguments filed in the amendment filed on **January 14, 2010**, have been considered but are moot in view of the new ground(s) of rejection.

Remarks:

Examiner suggests the applicant to set up an Interview after receives the current office action to discuss the patentable subject matters in order to advance the prosecution.

In claim 1, applicant has amended “an index search” into the claim language. To show second substance data is using index search. However, with broadest interpretation, “index” can be interpreted as “tree index.” (see Ashby et al. US 6,081,803, column 11, lines 62-64, “A spatial index (kd -tree) may be used to search for POI…”)

The limitation, “providing….a set of second substance data, which has an index as a search key…does not include data specified based upon search tree data…” does not clearly disclose that "index" is not in tree structure.

Examiner suggests the applicant to further clarify the "index search" is not a tree index or tree based format. The REMARKS, filled by the applicant, page 10 of 19, wrote “**The update data** provided by the claimed invention **is not transmitted in a format that includes a search tree with the substance data. An index is provided for searching in a non-tree based index search.**” Examiner suggests applicant can be as clear as the above phrases. Same suggestion is given to claims 3 and 13.

Applicant argued that, "The Office Action relies on Hanon for disclosure related to the features recited in claim 8, and in particular, the Office Action cites paragraphs [0106] and [0109] of Hanon for disclosure related to the features recited in claim 8.

Paragraph [0106] of Hanon discloses that a "navigation by address feature allows the user to specify a destination using an address." Paragraph [0109] states that, "the user can enter a state, city or street name using the preset controls to enter letters of the address entry." Hanon is silent regarding attaching "a non-target index to each set of update data determined not to be a search target based upon comparison results," as required by claim 8. Accordingly, Hanon does not cure the deficiencies in Tanaka and Miyahara discussed above. Applicant submits that claim 8 is patentably distinguishable over Tanaka, Miyahara, and Hanon for at least this reason."

Claim 8 will be allowable, if applicant can clarify the claim language. The claim limitation “attaches a non-target index to each set of update data determined not to be a search target based upon comparison result” is unclear. What dose "attaches" refer to? How are they attached? What are “non-target index”? For example, if there are 1 update data start with “A” and 99 update data start with “B”-“Z”, does the instant invention, will add the 99 update data start with “B”-“Z” in the first search data (i.e. Tree Structure) as soon as the user enter the first letter “A” (i.e. user is not searching for facility information started with “B”-“Z”)?

Drawings

4. The drawings are objected to because Fig.4 (a)-(c) item 33 has labeled "SUBSTANCE NAME" and item 34 has labeled "SUBSTANCE POSITION". However, the Specification, page 20, paragraph [0032] disclose “FIG. 4 shows the data format (structure)…a **substance data name** 33, a **substance data position** 34…” Corrected

drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

5. **Claims 1, 2, 3 and 13** are objected to because of the following informalities:

Claim 1 recites "providing, by the server, **data** constituted with…" (Claim 1, lines 4-7). The term "data" is too broad. Does it refer to "search data" in the Specification, page 14, paragraph [0022]?

Claims 1 and 3 recite "…providing, by the server, a set of second substance data…wherein the second substance data **does not include**…and **not updating** a set

of first substance data in the search data and **not adding**…" which is a **negative limitation** (e.g.: "not include", "not updating" and "not adding") and should be positively recited in the specification. However, examiner can not find the limitation in the specification.

In Claims 1, 3 and 13, determining which facility information from which database should be used is critical or essential to the practice of the invention, but not included in the claim(s). According to the Claim language, after receiving the Updated Data (i.e. set of second substance data), new database (i.e.: new index) will be created. When user try to search Facility information, device (i.e. navigator) will search old database (i.e. first substance data with tree structure), then the new database. However, if a store has been moved to a new location, the same store will show different address in both databases. A determination is required to pick which address.

For the above objections, appropriate clarifications are required. Examiner will withdraw the Claim Objections after applicant amends the claim language or points out the support in the Specification.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 1, 3 and 13 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

7. Claim 1 recites the limitation "providing, by the server, **data** constituted with **search tree data** having tree structure and a plurality of sets of **first substance data** specified based upon the search tree data, as **search data** prior to an update, the first substance data including facility information" in Claim 1, lines 4-7. There is insufficient antecedent basis for this limitation in the claim. What does “search data” refer to? (e.g. “data”, “first substance data” or "search tree data”) **The above claimed limitations are confusing and not clear, which leaves the examiner in doubt about the features to which they refer.**

8. Claim 3 recites the limitation "…**a search data** providing…" in Claim 3, line 3, “which **first search data** constituted…” in Claim 3, lines 5-6, and “…to update **the search data** from…” in Claim 3, line 9. There is insufficient antecedent basis for this limitation in the claim. Do “a search data,” “the search data” and “first search data” refer to the same thing? If they are, applicant should change “which first search data…” to “which the search constituted…”

9. Claim 3 recites the limitation "…and a plurality of sets of **first substance data** each specified based upon…**the substance data** including facility information…" in Claim 3, lines 7-10. There is insufficient antecedent basis for this limitation in the claim. Are “first substance data” and “the substance data” the same? If they are, applicant

should change the "the substance data including facility information" to "a plurality of sets of first substance data including facility information…"

10. Claim 13 recites the limitation "…**first search data** constituted with **search tree data** having tree structure and a plurality of sets of **first substance data** each specified based…" in Claim 13, lines 3-6 and "an update data obtaining device to obtain update data that are used to update or add to **the search data**", in Claim 13, page 8, lines 1-2. There is insufficient antecedent basis for this limitation in the claim. What does "the search data" refer to?

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

11. **Claims 1-5 and 9-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tanaka et al. (U.S. Pub. No.: US 2002/0013658 A1, hereinafter, Tanaka), in view of Miyahara (U.S. Pub. No.: U.S. 2003/0028316), and further in view of Bourdoncle et al. (U.S. Pub. No.: US 2002/0052894 A1, hereinafter Bourdoncle).**

Claim 1 is rejected as substantially similar as claim 3, for the similar reasons.

For claim 3, Tanaka discloses a search data update system, comprising:

a navigation apparatus that uses search data (Tanaka: paragraph [0007], "to provide a navigation system, in which registered locations input by users can be made a subject of an alphabet-based search", paragraph [0008], "to provide a navigation system, in which registered locations input by users can be made a subject of a facility search or a surroundings search based on a facility type-based search."); **and**

a search data providing apparatus that provides update data to be used to update the search data to the navigation apparatus (Tanaka: page 2, paragraph [0035]), **wherein:**

the navigation apparatus includes a storage device at which first search data constituted with search tree data having tree structure and a plurality of sets of first substance data each specified based upon the search tree data are stored, and an update data obtaining device that obtains the update data to be used to update the search data from the search data providing apparatus, the substance data including facility information (Tanaka: page 1, paragraph [0003], "In a navigation system…location names of various facilities are preliminarily stored as a search list and a target location is searched from an input location name by the use of the search list. This search is conducted alphabetically in Japanese 50-alphabet system…", paragraph [0009], "…has a rewritable memory which originally stores data of a plurality of locations…the

navigation system registers and stores data of the new location in the *rewritable memory* in addition to the data of the plurality of locations…", page 2, paragraph [0029], "…retrieving the map data from a *map data memory medium*…", paragraph [0032], "…For registering the new location…This specified location is registered as a *memory location*…", paragraph [0038], "a *memory location* is registered in a search list separate from an original search list, which pre-stores names of locations such as facilities, in place of updating an original search list (first embodiment)");

the update data are provided in units of individual sets of second substance data, wherein the second substance data include attached thereto an index as a search key to be used in a search in correspondence to each set of second substance data, and do no include data specified based upon search tree data (Tanaka: page 2, paragraph [0032], "A new location is registered …This specified location is registered as a memory location.", page 3, paragraph [0047], "retrieves at step 501 the data of name, area and facility type of the new location specified by the user as well as the location data such a coordinate specified by the cursor. The control unit 8 then updates the search list a step 502 with those new retrieved data.", page 3, paragraph [0044], "The surrounding location may be limited to be within a fixed radius from the specified location.", .", page 2, paragraph [0039], "…the control

unit 8 then forms a new search list…**separately** from the original search list”);

upon obtaining the update data from the search data providing apparatus, the update data obtaining device stores the obtained update data into the storage device separately from the first search data (Tanaka: page 1, paragraph [0009], “a navigation system has a rewritable memory which originally stores data of a plurality of locations. When a user inputs a new location other than the plurality of locations, the navigation system registers and stores data of the new location in the rewritable memory in addition to the data of the plurality of locations.”, page 2, paragraphs [0033]-[0040], “...The control unit 8 retrieves the name and data of the registered location at step 301 in the similar manner as at step 101 (FIG. 3). The control unit 8 then forms a new search list at step 302 to add the name of the memory location separately from the original search list. Specifically, as shown in FIG. 7B, a new search tree is formed in the new search list in addition to the original seach tree shown in FIG. 7A, when "A RA KI SA N TA KU" in Japanese (Mr. Araki's home in English) is registered as the name of the memory location…”); **and**

the navigation apparatus further includes a search device that executes a substance data search by using both the search tree data the first search data

stored in the storage device to execute a tree search and using the index attached to each set of second substance data of the update data stored in the storage device to conduct an index search, in correspondence to input of a character for search (Tanaka: page 1, paragraph [0009], page 2, paragraph [0032], "A new location is registered by the control unit 8 as shown in FIG. 3. For registering the new location", paragraph [0033], "The control unit 8 retrieves the name and data of the registered location at step 101." page 2, paragraphs [0033]-[0040], (note: "information to be used" can be broadly interpreted as ANY information and data: e.g. search tree data)).

However, Tanaka does not explicitly disclose the update data are provided in units of individual sets of second substance data, wherein the second substance data include attached thereto an index as a search key.

Miyahara discloses the update data are provided in units of individual sets of second substance data, wherein the second substance data include attached thereto an index as a search key (page 1, paragraph [0010], "producing the map data divided into a plurality of sets of map data that are mutually-independent set by set, the divided map data being stored in the server").

It would have been obvious to one of ordinary skill in the art at the time the invention was made to improve upon "Navigation system and method capable of registering new locations" as taught by Tanaka by implementing

"Satellite navigation system of which map data are partially updateable" as taught by Miyahara, because it would provide Tanaka's system with the enhanced capability of "to greatly reduce an amount of data to be re-loaded when map data is updated." (Miyahara: page 1, paragraph [0010]).

However, Tanaka and Miyahara do not explicitly disclose the navigation apparatus further includes a search device that executes a substance data search by using both the search tree data the first search data stored in the storage device to execute a tree search and using the index attached to each set of second substance data of the update data stored in the storage device to conduct an index search.

Bourdoncle discloses a search device that executes a data search by using both the first search data stored in the storage device to execute a tree search and using the index attached to each set of second substance data of the update data stored in the storage device to conduct an index search (Bourdoncle et al.: page 1, paragraph [0008], "...There is also proposed a search among site categories. Such a search is actually an independent category search in a separate databse. The results of the search are displayed to the user under the list of related searches. The results are displayed as a list of documents or sites..." page 3, paragraph [0042], "...selection of sites or documents among a database of indexed or partially indexed documents or sites, may be carried out in any way known in the art." pages 5-6, paragraph [0070],

"The database being provided…It is advantageous that the categories be organized in a tree structure for ease of navigation among the categories.").

It would have been obvious to one of ordinary skill in the art at the time the invention was made to improve upon "Navigation system and method capable of registering new locations" as taught by Tanaka by implementing "Searching tool and process for unified search using categories and keywords" as taught by Bourdoncle, because it would provide Tanaka and Miyahara's system with the enhanced capability of "…There is also proposed a search among site categories. Such a search is actually an independent category search in a separate database." (Applebaum et al.: Abstract).

Claim 13 is rejected as substantially similar as claim 3, for the similar reasons.

For claim 2, Tanaka discloses an modified update method performed by a server and a control device of a navigation apparatus for updating search data used in a navigation apparatus according to claim 1, further comprising:

Storing, by the control devices, the provided set of second substance data having the index as update data in the navigation apparatus separately from the search tree data and the plurality of sets of first substance data specified based upon the search tree data (Tanaka: page 1, paragraph [0009], "…originally stores data of a plurality of locations. When a user inputs a new location other than the plurality of locations, the

navigation system registers and stores data of the new location in the rewritable memory in addition to the data of the plurality of locations…", page 3, paragraph [0047], "retrieves at step 501 the data of name, area and facility type of the new location specified by the user as well as the location data such a coordinate specified by the cursor. The control unit 8 then updates the search list a step 502 with those new retrieved data.", page 2, paragraphs [0033]-[0040]).

For claim 4, Tanaka discloses a modified search data update system according to claim 3, wherein:

upon obtaining new update data, the update data obtaining device in the navigation apparatus sorts entire update data including the new update data and the update data already stored in the storage device based upon the index to be used in a search and stores the sorted update data in the storage device (Tanaka: page 1, paragraphs [0009], [0010], page 2, paragraph [0031], "…search list is stored in the form of search tree so that the target location is searched for in the Japanese alphabetical order…", paragraph [0035], "searches for the target location from the input location name at step 202 by using the *updated search list*.", paragraph [0039], where "second storage device" is read on "rewritable memory").

For claim 5, Tanaka discloses a modified search data update system according to claim 3 wherein:

the navigation apparatus further includes a control device that executes navigation processing including route search and route guidance by using the first or second substance data obtained via the search device (Tanaka: page 1, paragraphs [0003], [0004], page 2, paragraph [0030]).

For claim 9, Tanaka discloses a modified search data update system according to claim 3, wherein:

the update data obtaining device in the navigation apparatus transmits to the search data providing apparatus information indicating a range of search data to be updated; and if update data are available over the range of search data to be updated indicated in the received information, the search data providing apparatus provides the update data over the range to the navigation apparatus (Tanaka: page 3, paragraph [0044], "The surrounding location may be limited to be within a fixed radius from the specified location.", where "may be limited" indicates it can update over a fixed radius, page 2, paragraph [0032], page 3, paragraphs [0045]- [0047]).

For claim 10, Tanaka discloses a modified search data update system according to claim 3.

However, Tanaka does not explicitly disclose wherein: the update data obtaining device in the navigation apparatus transmits to the search data providing apparatus information related to a version of the update data stored in the second storage device; and if a newer version of substance data than the version indicated in the received information is available, the search data

providing apparatus provides the update data corresponding to the newer version of the substance data to the navigation apparatus.

Miyahara discloses wherein: the update data obtaining device in the navigation apparatus transmits to the search data providing apparatus information related to a version of the update data stored in the second storage device (Miyahara: page 6, paragraphs [0096] and [0097])**; and if a newer version of substance data than the version indicated in the received information is available, the search data providing apparatus provides the update data corresponding to the newer version of the substance data to the navigation apparatus** (Miyahara: page 6, paragraphs [0096]-[0098]).

For claim 11, Tanaka discloses a modified navigation apparatus in a search data update system according to claim 3 (Tanaka: page 1, paragraph [0007], page 2, paragraphs [0029]-[0030])**.**

For claim 12, Tanaka discloses a modified search data providing apparatus in a search data update system according to claim 3 (Tanaka: page 2, paragraphs [0029]-[0030])**.**

12. **Claims 6 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tanaka et al. (U.S. Pub. No.: US 2002/0013658 A1, hereinafter, Tanaka), in view of Miyahara (U.S. Pub. No.: U.S. 2003/0028316) and further in view of Bourdoncle et al. (U.S. Pub. No.: US 2002/0052894 A1, hereinafter Bourdoncle) as applied to claim 3 above, and further in view of Saito et al. (U.S. Pub. No.: US 2003/0140309 A1, hereinafter, Saito)**

For claim 6, Tanaka discloses a modified search data update system according to any claim 3.

However, Tanaka does not explicitly disclose wherein: once a number of sets of update data having been obtained becomes equal to or greater than a predetermined value, the update data obtaining device in the navigation apparatus provides an audio output or a display output notifying that the number of sets of update data is equal to or greater than the predetermined value.

Miyahara discloses wherein: once a number of sets of update data having been obtained becomes equal to or greater than a predetermined value, the update data obtaining device in the navigation apparatus that the number of sets of update data is equal to or greater than the predetermined value (Miyahara: page 6, paragraphs [0096]-[0098]).

However, Tanaka, Miyahara and Bourdoncle do not explicitly disclose providing an audio output or a display output notifying that the number of sets of update data is equal to or greater than the predetermined value.

Saito discloses providing an audio output or a display output notifying (Saito: pages 11-12, paragraph [0203]-[0206]).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to improve upon "Navigation system and method capable of registering new locations" as taught by Tanaka by implementing "Information processing apparatus, information processing method, storage medium, and program" as taught by Saito, because it would provide Tanaka's modified system with the enhanced capability of "for the user to update the database at any time desired." (Saito: page 11, paragraph [0201]).

Claim 7 is rejected as substantially similar as claim 7, for the similar reasons.

Further, Tanaka discloses obtains a new version of first search data constituted with new search tree data and a new plurality of sets of first substance data containing second substance data in the update data search specified based upon the new search tree data and stores the new version of first search data thus obtained into the storage device. (Tanaka: Fig. 4).

13. **Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tanaka et al. (U.S. Pub. No.: US 2002/0013658 A1, hereinafter, Tanaka), in view of Miyahara (U.S. Pub. No.: U.S. 2003/0028316) and further in view of Bourdoncle et al. (U.S. Pub. No.: US 2002/0052894 A1, hereinafter Bourdoncle) as applied to claim 5 above, and further in view of Hanon et al. (U.S. Pub. No.: US 2003/0231163, hereinafter, Hanon).**

For claim 8, Tanaka discloses a modified search data update system according to claim 5.

However, Tanaka does not explicitly disclose wherein: the navigation apparatus further includes an input device with which a search key can be entered one character at a time, wherein: in correspondence to each character entered via the input device, the search device advances a search executed by using the search tree in the first search data, also compares the character with the information to be used in a search, which is contained in each of a plurality of sets of update data stored in the second storage device, and attaches a non-target index to each set of update data determined not to be a search target based upon comparison results.

Hanon discloses wherein: the navigation apparatus further includes an input device with which a search key can be entered one character at a time, wherein: in correspondence to each character entered via the input device, the search device advances a search executed by using the search tree in the first search data, also compares the character with the information to be used in a search, which is contained in each of a plurality of sets of update data stored in the second storage device, and attaches a non-target index to each set of update data determined not to be a search target based upon comparison results (Hanon: pages 8-9, paragraph [0106] and [0109]).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to improve upon "Navigation system and method capable of registering new locations" as taught by Tanaka by implementing "Interface for a multifunctional system" as taught by Hanon, because it

would provide Tanaka's modified system with the enhanced capability of "attempts to complete the city or state name based on the letters input by the user." (Hanon: page 8, paragraph [0109]).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to YU ZHAO whose telephone number is (571)270-3427. The examiner can normally be reached on Monday-Friday 7:30am-5:00pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tony Mahmoudi can be reached on (571) 272-4078. The fax phone number for the organization where this application or proceeding is assigned is 571-270-4427.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Date: 2/26/2010

/Yu Zhao/

Examiner, Art Unit 2169

/Yicun Wu/

Primary Examiner, Art Unit 2158